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THE DAIRY INDUSTRY IN THE PEOPLE'S REPUBLIC
OF BULGARIA

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326. THE DAIRY INDUSTRY IN THE PEOPLE'S REPUBLIC
C.5.3. OF BULGARIA

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The utilization of milk as food for man dates back to the remote past of human society. The economic and cultural development of the nations has gone hand in hand with the development of dairy farming until present day when it constitutes a major branch of agriculture, while the processing of milk became a very important industry. The favourable conditions of climate in Bulgaria provide excellent opportunities for the development of dairy farming, while the new economic structure of the country turned pooled the once small-scale dairy farms in the country into bigger and more efficient units.

It is beyond dispute that the development of the dairy industry is in the first place related to the development of milk-production. One of the specific features of milk-production in Bulgaria which inevitably affects the structure of the country's dairy industry, is the production of cow, sheep and buffalo milk, with the ratios among the three types changing constantly as a result of the growing production of cow milk. Whereas before the war the quantity of sheep milk whose production has a seasonal character accounted for 87 per cent of the total amount of milk processed in the country, this percentage has dropped to merely 24 in 1961. During the pre-war period, this feature of milk-production was a reflection of a particular type of milk-processing enterprises which were small, with no modern equipment, and operating on a seasonal basis. There were a total of 1,159 such small enterprises during this period, 662 of which were in private hands and 497 were co-operative. The average annual capacity of one of these enterprises was 63 tons. The principal dairy products obtained were the yellow cheese, known as Kashkaval, and the white brined cheese made of sheep milk. At that time Bulgaria possessed not one single mechanized enterprise dealing in the processing or supply of milk to the population. Milk was sold directly by the private farmers or by middlemen from the villages. The large number of people bringing milk into the towns made it impossible to exercise efficient control over the milk offered for sale on the market. That is why it was low-grade milk that was offered to the consumers as a rule.

The setting up of a big dairy industry passed through several stages after the war. During the first years the efforts were directed towards restoring livestock-breeding as a whole and towards organizing the milk-processing industry under public control. All dairy farms were reorganized on a co-operative footing and the supply of milk to the population was taken over by the

respective people's councils. The rapid increase in the quantities of milk produced made it necessary to set up a special enterprise known as the "Mlekokoop" at the Central Union of Co-Operatives which took over all milk-processing in the country. The beginnings were laid in this manner of a well-organized milk-processing industry in Bulgaria.

The general process of industrialization after the war led to the appearance of new industrial centres and to the rapid expansion of the existing ones, of their population respectively. The need to supply this population with fresh milk and dairy products called for the organization of modern enterprises which laid the foundations of the national dairy industry of today. The difficulties encountered during this period consisted in the first place in collecting and transporting the milk, this being done by a large number of small enterprises. The lack of suitable facilities to keep the milk led to deterioration in its quality and to a corresponding deterioration of the quality of the dairy products made. Conditions radically changed when the state set up big enterprises and farms in this branch of the country's economy as well. The introduction of milking machines on a large scale played a decisive part in improving the quality of the milk. The pooling of the milk-producing enterprises into bigger units went hand in hand with the process of uniting the existing dairy farms in the setting up of big milk-processing enterprises whose number reached 60 in 1961. The great investment of capital in the building of big dairy farms and in supplying them with modern machinery and equipment called for the nationalization of all enterprises concerned with the distribution and processing of milk. Special services were set up at each administrative unit of the country for the administration and control of these enterprises.

The establishment of big modern enterprises to deal with the distribution and processing of milk made it possible to increase the variety of dairy products made in the country. The cow milk now obtained is processed into butter, yoghurt, curds, certain types of hard Dutch cheeses, white brined cheese, and the Cheddar cheese in recent years. The buffalo milk obtained is, as a rule, mixed with cow milk and used in making yoghurt since it greatly improves the quality and taste of this product. The sheep milk produced is used in making Kashkaval, white brined cheese, and Roquefort cheese. A number of caves in the country have been adjusted to this end, and some of them can hold several thousand tons of cheese today. The white brined cheese and the Kashkaval are products which are of interest to countries of warmer climate as well. The technological processes involved in the production of white brined cheese are simple and require no great amounts of complicated equipment. Both maturing and keeping the cheese is done in sour brine and this requires no particular conditions or temperatures.

Prior to the war, this cheese used to be made of sheep milk alone. Today, the microbiological and physicochemical studies undertaken in this field have led to the discovery of a new technology of preparing high-grade white brined cheese from cow milk as well. At the same time, in view of the high biological value of the proteins in the milk and of their utilization in the diet of the population, a new type of white brined cheese was created made of cow milk, which includes the soluble proteins in the milk. Thanks to long experience and to the scientific substantiation of the new technological processes devised, the white brined cheese

produced in Bulgaria ranks first among the 16 types of cheese made in the Balkans. Raw sheep milk of a comparatively high acid content is used in making Kashkaval. One of the interesting features in the technology involved in the preparation of this cheese, - heating the curdled mass to 70 or 75° C before the latter is formed into cheese cakes, aims at destroying the larger part of the existing microflora and at stopping the rapid processes of fermentation. This makes it possible for the Kashkaval to "ripen" under conditions of higher temperatures. The type of "Balkan Kashkaval" evolved in Bulgaria is made into thick cakes with a high water content and a low content of salt. It is the best cheese of its kind and is well known far beyond the boundaries of the country.

As regards churning butter, this process has been greatly mechanized. The principal task now facing solution in the dairy industry of Bulgaria is the complete mechanization of the process of obtaining yoghurt and the mechanization of certain processes in the preparation of white brined cheese. Certain processes in the preparation of Kashkaval can also be mechanized. Complete mechanization has been introduced only in making the Cheddar Cheese. There are almost unlimited possibilities of producing this type of cheese in Bulgaria.

The introduction of new machinery in the country's dairy industry and the perfectioning of the existing machines and equipment set high requirements before workers and specialists engaged in this particular branch of industry. That is why the training of efficient workers and specialists is one of the most important features of the programme of undertakings related to the development of the dairy industry. These specialists are now receiving training in three vocational high-schools, one technical college and two higher institutions of learning.

A Dairy Industry Research Institute was set up in 1960 to study the problems that arise in practice and to help in the application of the achievements of science all over the world. This institute has the task of supplying bacterial cultures to all enterprises in the country which need them. This centralization played a valuable part in improving the quality of dairy products obtained in Bulgaria at present.

